

## **Presence of High-Level Gentamicin-Resistant Enterococci in Stool Specimens from Healthy People and in Retail Chicken Products in the United States**

*Karchmer T, Gregg C, Debess E, Madden J, Gilbert L, Park M, Sullivan M, Johnson S, Hill B, Archibald L, Marano N*

**Background:** Enterococci resistant to high levels of gentamicin (HLGR) are increasingly common causes of nosocomial infection in the U.S. Gentamicin (G) is used extensively in the poultry industry. A prevalence study of HLGR enterococci (HLGRE) in stool specimens from healthy people and in retail chicken products was conducted.

**Methods:** From 7/98 - 6/99, 4 labs in GA, MD, MN and OR used enterococcal selective media (CNA) and G-resistant selective media (GRM) (Ford agar supplemented with arabinose and G) to culture stools and chickens. Species identification and antimicrobial susceptibility testing by broth microdilution was conducted at CDC.

**Results:** Using CNA, enterococci were isolated from 278 (68%) of 410 stools. 146 (53%) were tested. 6 (4%) had HLGR: 2 (5%) of 44 *E. faecium*, 4 (6%) of 67 *E. faecalis* and 0 (0%) of 35 other enterococci. Prevalence of HLGRE from stool was 3%. Using GRM, enterococci were isolated in 33 (8%) stools. 4 (12%) were tested and all exhibited HLGR: 1 (100%) *E. faecium*, 3 (100%) *E. faecalis*. Prevalence of HLGRE using GRM was 8%. Using CNA, 344 (84%) of 410 chicken samples grew enterococci. 189 (55%) were further tested. 84 (44%) had HLGR: 1 (13%) of 8 *E. faecium*, 67 (46%) of 146 *E. faecalis*, 16 (47%) of 35 other enterococci. Prevalence of HLGRE in chickens was 37%. Using GRM, enterococci were isolated from 313 (76%) chickens. 218 (70%) were tested. 207 (95%) had HLGR: 65 (93%) of 70 *E. faecium*, 99 (95%) of 104 *E. faecalis*, and 43 (98%) of 44 other enterococci. Prevalence of HLGRE in chickens was 72%.

**Conclusions:** HLGRE was isolated from healthy people in the community possibly due to consumption of chicken. Human carriage of HLGRE could provide a source for the development of infections in hospitalized patients. To mitigate the problem of HLGRE, antibiotics need to be used prudently in hospitals and in chickens.

### **Suggested citation:**

Karchmer T, Gregg C, Debess E, Madden J, Gilbert L, Park M, Sullivan M, Johnson S, Hill B, Archibald, Marano N. Presence of high-level gentamicin-resistant enterococci in stool specimens from healthy people and in retail chicken products in the US. 4th Decennial International Conference on Nosocomial and Healthcare-Associated Infections. Atlanta, GA, February 2000.